

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Currently Amended) A micro-fabricated solubility measuring system comprising a microfabricated device having a surface region in the device, said surface region being defined by one or more physical structures which aid retention of defined quantities of ~~for receiving~~ solid sample, and a liquid inlet for introducing a predetermined amount of a liquid to the region together with a detector which determines ~~directly or indirectly~~ if solid sample is removed from the surface region by the liquid.

2. (Currently Amended) A micro-fabricated solubility measuring system as claimed in claim 1 wherein the detector determines ~~directly or indirectly~~ the amount of solid sample removed from the region by the liquid.

3. (Currently Amended) A method for determining the solubility of a sample in a micro-fabricated device the method comprising:

(1) applying the sample in solid form to a surface region in the device, said surface region being defined by one or more physical structures which aid retention of defined quantities of solid sample;

(~~12~~) introducing a predetermined amount of liquid to said surface ~~a solid sample containing~~ region within the micro-fabricated device;

(~~23~~) using a detector to measure ~~measuring~~ the amount of solid sample removed from the surface region by the liquid; and

(3 4) determining the solubility of the sample by reference to the measurement of solid sample removed from the region and the amount of liquid used.

4. (Cancelled)

5. (New) A system as claimed in claim 1, each said physical structure being selected from the group comprising an etched structure, a built up structure and a molded structure.

6. (New) A system as claimed in claim 1, each said physical structure being selected from the group consisting of an indent, slot and groove.

7. (New) A system as claimed in claim 1, each said physical structure being selected from the group consisting of an indent formed by a depression in the surface of the microfabricated device and an indent within a raised structure on the microfabricated device.

8. (New) A system as claimed in claim 1 in which the detector is sensitive to the presence of solid sample at said surface region in order to determine if solid sample is removed from said surface region by the liquid.

9. (New) A system as claimed in claim 1 in which said physical features form diffraction structures with which the detector interacts to determine if solid sample is removed from said surface region by the liquid.

10. (New) A micro-fabricated solubility measuring system comprising a microfabricated device having a region in the device for receiving a solid sample, a liquid inlet for introducing a predetermined amount of a liquid to the region, and a detector associated with said region and configured to determine if solid sample is removed from the region by the liquid.

11. (New) A system as claimed in claim 10 in which the detector is arranged to be sensitive to the presence of solid sample at said region.

12. (New) A system as claimed in claim 10 in which the region comprises a surface region defined by one or more physical structures which aid retention of defined quantities of solid sample.

13. (New) A system as claimed in claim 10, each physical structure being selected from the group consisting of an etched structure, a built up structure and a moulded structure.

14. (New) A system as claimed in claim 10, each physical structure being selected from the group consisting of an indent, slot and groove.

15. (New) A system as claimed in claim 10, each physical structure being selected from the group consisting of an indent formed by a depression in the surface of the microfabricated device and an indent within a raised structure on the microfabricated device.

16. (New) A method as claimed in claim 3 in which the solubility of the sample is determined in terms of the rate of dissolution of the sample by: (a) using said detector to measure the amount of solid removed at time points after introduction of the liquid; and (b) determining the rate of dissolution by reference to the measurement of solid sample removal from the region and the amount of liquid used over time.

17. (New) A method as claimed in claim 3 in which step (3) is carried out using a detector sensitive to the presence of solid sample at said surface region.

18. (New) A method as claimed in claim 3 wherein each physical structure is selected from the group consisting of an etched structure, a built up structure and a molded structure.

19. (New) A method as claimed in claim 3 wherein each physical structure is selected from the group consisting of an indent, slot and groove.

20. (New) A method as claimed in claim 3 wherein each physical structure is selected from the group consisting of an indent formed by a depression in the surface of the microfabricated device and an indent within a raised structure on the microfabricated device.

21. (New) A method as claimed in claim 3 wherein said physical features form diffraction structures and the detector is configured to interact with the diffraction structures in order to determine if solid sample is removed from said surface region by the liquid.